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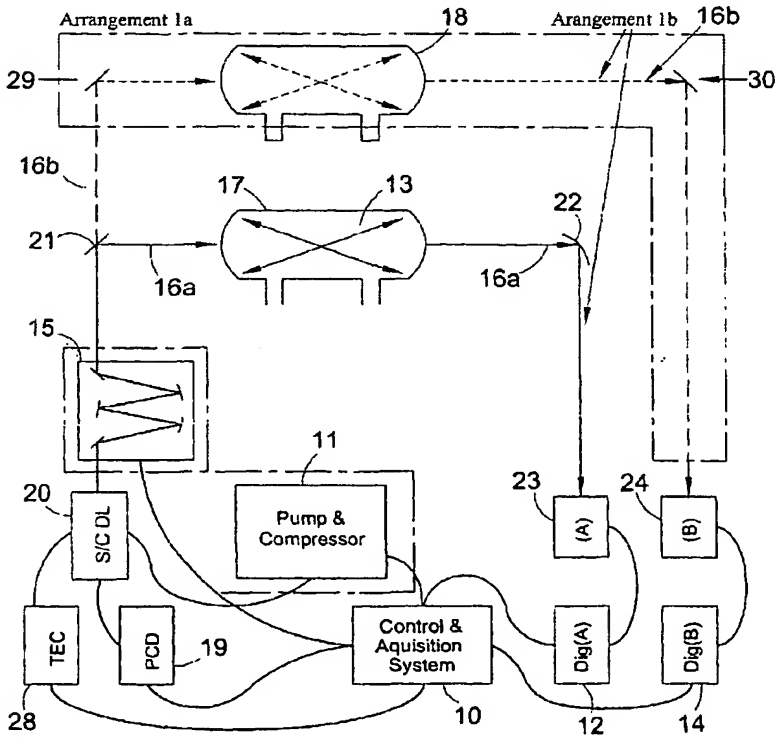
(54) Title: SEMICONDUCTOR DIODE LASER SPECTROMETER ARRANGEMENT AND METHOD



(57) Abstract: A method apparatus for sensing gases using a semiconductor diode laser spectrometer, the method comprising: introducing a sample gas into a non-resonant optical cell (17); applying a step function electrical pulse (19) to a semiconductor diode laser (20) to cause the laser (20) to output a continuous wavelength chirp for injecting (16a) into the optical cell (17); injecting (16a) the wavelengh chirp into the optical cell (17); using the wavelength variation provided by the wavelength chirp as a wavelength scan, and detecting (23) light emitted from the cell (17), wherein a chirp rate is selected to substantially prevent light interference occuring in the optical cell (17).

WO 2003/087787 A1